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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/697,605 | 10/26/2000 | Michael C. Park | EWG-123-US | 3504 |

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| EXAMINER |
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VO, TUNG T

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| ART UNIT | PAPER NUMBER |
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2613

DATE MAILED: 05/13/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/697,605

Applicant(s)

PARK ET AL.

Examiner

Tung T. Vo

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5 and 16-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 16, 17, 19-21, 23-26, 29, 30 and 32-34 is/are rejected.
- 7) ☒ Claim(s) 18, 22, 27, 28 and 31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3, 4, 9.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claim 5 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 33 and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Katayama et al. (US 5,982,951).

Re claims 33 and 34, Katayama discloses a calibrations for calibrations a panoramic camera system (a user takes photographs by adjusting zoom, tilt, pan, and focus, col. 5, lines 45-50) that captures overlapping single view images that are seams together into a panorama, the structure comprising:

an edge including indicia (Pa1...Pa5, Pb1...Pb5 of fig. 22);

a mount for panoramic camera system (the panoramic must be inherently mounted on or secured with a mechanism such as tripod, or a person/user holds the panoramic camera in a position to capture single image), the mount position so that the panoramic camera system captures a first single view image including at least some of the indicia and also capture a second single view image include at least some indicia, wherein the first and second view images are to be seamed together along the edge (250 of fig. 19, fig. 22).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5, 16-17, 19-21, 23-26, 29-30, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xiong (US 6,359,617 B1) in view of Katayama et al. (US 5,982,951).

Re claims 5, 16-17, 19-21, 26, 29, 30, and 32, Xiong teaches a computer readable medium containing a software program for implementing a method for calibrating a panoramic camera system (a panoramic camera or a fisheye lens camera) (210, 224 of fig. 2) capturing overlapping single view images (figs. 1a and 1b) that are seamed together (fig. 11a and 11b) into a panorama, the method comprising,

receiving a first single view image of structure (IMAGE 1 of fig. 11b)

receiving a second single image of the structure (IMAG N-1 of fig. 11b), wherein the first and second single view images are to be seamed together along the edge (1120 of fig. 11b).

adjusting camera parameters (col. 9, lines 1-21, e.g. camera pan, tilt, roll and skew, and the brightness and contrast of images, the user interface may have the ability to adjust the aforementioned parameters for each image individually, or may have the ability to adjust parameters for images captured with a particular methodology, such as equal angular increments in latitude and longitude) to seam together the first and second single view images along with the edge (1120 of fig. 11b).

It is noted that Xiong does not particularly teach the structure including first indicia along an edge of the structure that contains a row of indicia, and second indicia along the same edge of the structure that contains the same row indicia and other row indicia, two rows are separated that accounts for parallax between capture of the first single view image and capture of the second single view image as claimed.

However, Katayama et al teaches the structure including first indicia along an edge of the structure that contains a row of indicia (interpreted a sample pixel Pa1 of image A of fig. 22 is first indicia, wherein the Pa1 is along the edge), and second indicia along the same edge of the structure that contains the same row indicia and other row indicia (Pb1, a sample pixel of the image B, of fig. 22 is second indicia; and wherein Pa1 and Pb1 are seamed or combined to form a panoramic image), and two rows are separated that accounts for parallax between capture of the first single view image and capture of the second single view image (3230, 240 of fig. 19, fig. 22). Therefore, taking the teachings of Xiong and Katayama as a whole, it would have been obvious to one of ordinary skill in the art to incorporate the teachings of Katayama into the

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panoramic camera system of Xiong for the same purpose of seaming the first indicia and second indicia of the single view images as claimed. Doing would provide the system to accurately form the panoramic image.

Re claims 23-25, Xiong further teaches where at least one of camera parameter is selected from a group consisting of offset, distortion, brightness, contrast, heading, pitch, and field of view (fig. 6) and automatically locking out one of the camera parameters during adjustment.

Allowable Subject Matter

6. Claims 18, 22, 27-28, and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See the previous Office Action, Paper No 8.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung T. Vo whose telephone number is (703) 308-5874. The examiner can normally be reached on 6:30 AM - 3:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris. Kelley can be reached on (703) 305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



TUNG T. VO
PATENT EXAMINER

T.Vo

Tung T. Vo
Examiner
Art Unit 2613